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PUBLISHED BY LUTHER TUCKER.

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GENESEE FARMER.

SATURDAY, AUGUST 5, 1837.

Agricultural Society of the Western District, U. C.

Whatever may be the disadvantages which the more elevated and northern parts of the Canadian provinces experience from climate, that part of Upper Canada lying west of Ontario, and bounded by the Erie and St. Clair, must be considered as exempt from these inconveniences, and furnishing one of the finest farming countries on the continent. Lying in the same parallel with the rich wheat country of Western New York—resembling it in soil and climate—separated from that region only by the Niagara—it must be considered equally favorable for all the great staple productions of the north; and the quantity and quality of the wheat passing down the Erie canal or the St. Lawrence, or manufactured into flour at the Rochester or Oswego mills, brought from this part of that province, furnishes the most conclusive evidence on that point. That territory is also peopling rapidly with substantial farmers from England and Scotland, with not a few from the United States—men in general wealthy and intelligent, and disposed to adopt and carry out the most approved methods of agriculture known in their several countries.

Sensible of the great advantages to be derived from Agricultural Societies in eliciting and diffusing valuable information—in awakening emulation and concentrating opinion, the public spirited citizens of this district of Upper Canada have formed an Agricultural Association, to be known as the "*Western District Agricultural and Horticultural Society,*" and have entered upon the business marked out in their constitution with a promptness and energy that promises the best results. His excellency, Sir FRANCIS B. HEAD, was elected Patron of the Society, Major ROBERT LACHLAN acting Director, and W. ANDERSON Secretary.

At a meeting subsequent to the one at which the organization of the society took place, the Executive Committee announced a list of *premiums* to be awarded at the autumnal meeting of the society, to be held at Sandwich the present year, the exact time not fixed, but probably in October. The prizes are divided into five classes, embracing, I. Cattle, horses, sheep, and swine—number of premiums 44, varying in amount from two to ten dollars. II. Prize farms—three premiums, 30, 20, and 15 dollars. III. Prize farm produce—number of premiums 43, embracing all the varieties of grains and roots cultivated in this latitude. IV. Choice fruit trees and fruits—seven premiums, from two to eight dollars. V. Domestic manufactures from native produce—three premiums. VI. Agricultural experiments—four premiums, two 10 and two 15 dollars each. A discretionary power is also granted to award special prizes for any new or improved animal or vegetable production, farming implements or machinery, which may come under the notice of the committee, even if the person presenting is without the limits of the society.

The awarding of some of the premiums must of necessity be deferred till another year, but for the greater part will be open for competition the present year, and we cannot doubt that the meeting, when it shall be announced, will be attended in such a manner and spirit, as will demonstrate the wisdom and sound policy of those who have embarked in the undertaking. The experience of this state in such societies, has shown them to be eminently useful, although existing as they did for but a comparatively short period of time, while most of the members of the present W. D. A. & H. S. have fully experienced the benefits of those so long continued and ably conducted in their native countries, and are therefore able to understand and appreciate their good effects.

We should be pleased to present to the readers of the Farmer the resolutions adopted at the formation of the society, and the proceedings of the Executive Committee, both of which have been kindly forwarded us, in the hope that some of the spirit and honorable anxiety to improve and advance the cause of agriculture shown in them, might have its effect in awaking a kindred emulation here, but our limits will not permit. There was one resolution, however, adopted at a general meeting of the association on the 20th ult., more immediately relating to ourselves, and which we shall be pardoned for inserting, as the approbation, unsolicited, of good citizens and *competent judges*, is a kind of reward for which, as the conductor of a journal like the Genesee Farmer, we feel particularly gratified:

"*Resolved*, That in admiration of the able manner in which *Luther Tucker*, of Rochester, in the state of New York, Editor of the '*Genesee Farmer*,' has, in that valuable and useful periodical, advocated and promoted the advancement of agricultural knowledge in the neighboring American states, as well as in Canada, for seven successive years, he be unanimously elected an Honorary Member of this Society."

While we tender our acknowledgments for the honor thus conferred, we wish also to state explicitly, that as publisher of the Genesee Farmer, we claim little more of the merit which may justly be considered as belonging to the editorial department, than that of general superintendence, but that the work owes its high character to the editorial supervision of such men as DAVID THOMAS, JOHN J. THOMAS, and WILLIS GAYLORD. It is proper to say here—and we may do it without offence to any one—that if there is one individual who has done more to advance the interests of agriculture in Western New York, and the neighboring sections of country, David Thomas is that man. Connected as he has been with this journal as Editor nearly from the commencement, until within a few months, his persevering spirit and untiring industry—his general knowledge and his intimate acquaintance with the natural sciences—his devotion to the cause of the farmer—and more than all perhaps, his practical skill and thorough experience in the pursuits of agriculture, have mainly contributed to give the Genesee Farmer a reputation, we are justified in saying, second to no periodical in the United States, devoted to the advancement of agriculture.

We trust our Canadian friends will persevere, and that the "Western Agricultural Society" will become as famed, and as much advance the cause of agriculture in America, as have those which have served as a pattern to its founders, the same interests in the "Father Land."

Experiments in the Culture of Corn.

The following interesting series of experiments on the comparative value of different substances as a manure for corn, we copy from the Zanesville Gazette. It is such experiments that throw light on the business of agriculture, and we feel much indebted to the patriotic farmers of that prosperous state for the numerous valuable papers they have furnished us in the course of our publication of the Genesee Farmer, as well as for the liberal patronage they have bestowed upon us in our endeavors to advance the cause of the farmer.

"MESSRS. EDITORS—Believing in the policy of communicating through the public papers the result of experiments in our several occupations, that all may be profited by the experience of each, I wish to communicate through your columns the result of an experiment which I made last year upon a lot of two acres of corn. The land was of a uniform quality, being a light sandy loam, which had been in timothy meadow for many years.

The first half acre I manured by putting a shovel full of sheep manure into each hill—the second by a shovel full of chip manure in each hill—on the third I used a shovel full of manure from the barn-yard, or rather a mixture of fine manure and earth, obtained by ploughing the yard after removing the long manure—on the fourth I used the same quantity of stone coal ashes, being a mixture of well rotted and fresh ashes.

The corn was dropped carefully upon the manure, and throughout the whole lot pumpkin seed were dropped with the corn. On the part manured from the sheep-yard, not a stalk of corn made its appearance, though the pumpkins grew well; and indeed in the pumpkin crop there was little difference; it was fine throughout. Between the produce on the portions manured with chip-yard and barn-yard manure, there was no observable difference; both was a good yield, say 50 bushels per acre; but the yield on the part manured with coal ashes was at least at the rate of 100 bushels per acre. No accurate measurement was made, but the relative quantities were readily ascertained.

The above are the facts of the case, and I should be pleased to hear the views and experience of some of my fellow farmers; for if coal ashes are really so valuable as a manure, it is time that the farmers of Muskingum should know it. I have tried coal slack on clover, and found it to answer a valuable purpose. I should like to have an essay on the nature of coal ashes, as well as on the above experiment generally, by the editor of the Genesee Farmer. A MUSKINGUM FARMER."

Without attempting an "essay," we will append a few remarks to the above, merely hinting that the facts elicited by the farmer in such experiments, are the most valuable essays that can appear in any journal devoted to agriculture.

In activity, manures have been ranked as follows:—bone dust, night soil, or poudrette, hog dung, sheep manure, that from the barn yard, decomposed wood or chip dung, and that produced from vegetables, or black muck. It is evident, however, that with all these, much must be depending on the nature and constitution of the soil on which they are used. Some kinds of manure are of a more hot nature than others, and are improper for vegetation when used in large quantities and without preparation. Sheep manure in a recent state, and in the quantity stated above, would appear to be of this kind, and such is the opinion among many of the New England farmers, where much reliance is justly placed on this manure. The large amount of soluble matter and salts contained in this manure, confer upon it most active and

valuable qualities, but clearly render it improper when used, as in this case, nearly alone for a bed intended for the vegetation of seeds, though some would appear to be much more capable of enduring its heating qualities than others.

Chip-yard manure, when thoroughly rotted, is valuable, and its action is prompt, but not very durable. Having once been through the process of organization, it is again readily applied in the processes of nature to the same purposes, but is very far from possessing the stimulating character of those manures derived from animals. From some experiments it appears that shavings and fine chips incorporated with the soil produced little or no beneficial effect the first year, in the second year the good effect was plainly seen, and the maximum of benefit was reaped the third year.

Wood ashes, leached or unleached, furnish a most valuable dressing for the soil, particularly sandy or gravelly ones, and as such should be far more extensively used than they are at present. As to the ashes derived from coal, such as was used in the above experiment, we cannot speak from experience, as little stone coal is as yet used in this section of the country, and our farmers have had little opportunity of testing its effects. Our Muskingum friend is not however alone in his estimate of its valuable properties, which from its nature without doubt far exceed those of common wood ashes.

Chaptal, in his chapter on stimulating manures, says, "The ashes of turf and pit-coal, produce wonderful effects upon grass lands. The first of these often contains gypsum, but frequently only silica, alumina, and oxide of iron. From ashes of pit coal I have obtained by analysis sulphuret of lime." And it is evident that it also contains other active salts.

In an article on the "effects of blacksmith's cinders as a manure," published some time since in the Farmer's Register, the writer says—"Some twelve or fifteen years ago, (the exact period I have forgotten,) I spread upon a small piece of land, perhaps about two acres, a large pile of cinders, which had accumulated at the end of a blacksmith's shop. At the time this was done, the chief benefit was expected from some remains of sulphurous matter which might be in the material, as much stone or pit coal had been burned in the shop. I also hoped that simply blackening the soil would improve its products by enabling it to absorb more heat. The next crop was fine, and it has continued to produce wonderfully ever since. I do not recollect that I have ever put on any manure beside the cinders, yet I do not know in this vicinity a piece of high land of the same size, to which, if moderately manured, I would sooner trust for a fine crop of any kind.

"I have felt much at a loss to account for the cause of this increase of fertility from the use of these cinders. Since learning a little more, however, of the chemistry of agriculture, I begin to suspect that I have partly learned the secret. Blacksmiths, while heating their iron and steel, use sand largely, by throwing it on the fire, and dipping the metal to be operated upon in beds of it to prevent oxydation. There is some potash, also, probably formed from the ashes of the coal exposed to extreme heat. Thus we have the materials for the formation of the silicate of iron and potash, which seems to be the acting manure of the famous Jersey marl. Of course, if this notion is correct, every blacksmith, while forming tools wherewith to work the land, is unconsciously preparing a most excellent material for increasing its fertility."

Without intending to endorse all the opinions advanced in the above extract, we think there is an approximation to the true cause of the efficacy of coal ashes, and the similarity in the results of the experiments made with coal cinders and coal ashes, show that their active causes must be the same. The salts they contain are of the most powerful kind known as stimulants to vegetation, and to these they undoubtedly owe their efficiency. Gypsum, silicate of iron, and potash, cannot be applied to the soil without producing beneficial effects; and if in the form of ashes or powder, would operate more rapidly, but probably less durably, than if distributed in the shape of cinders. Experience is, however, the only sure test in these matters, and we hope all those who have cinders, or stone coal ashes, at their command, will institute such a series of experiments, as shall not only determine their value compared with each other, but with other manures which have been long in use among farmers.

Making Hay.

There still exists among farmers a considerable difference of opinion as to the most proper time of cutting grass so as to make the best hay, and though it is probable there is not as much variance as formerly, still in every thing that relates to economy of feeding, and health of animals during our long winters, farmers are so much interested, that nothing having a bearing on such questions should be neglected. The only important argument used in favor of cutting hay early, is, that well cured, it retains its color and fragrance, and that animals will eat it more freely than when cut at a more mature state.

This is undoubtedly true; and if color, fragrance, and being readily eaten were all the qualities required in a hearty and economical food for animals, the question might be considered settled at once. There are two or three things, however, that are deserving of notice on the side of letting grass mature before it is cut for hay. In the first place, an acre of grass cut before the blossoms put forth, will lose one third more in curing than when allowed to stand until the seeds are nearly matured. When cut green the juices are thin and watery, and of course evaporate more freely and completely, than when they have become thick and gumlike in the approach to ripeness. In the second place grass matured can be cut and secured in much less time, and with far less labor, than when cut green. Every one who is in the habit of mowing a second time will readily admit this. In the third place, and what is of far more consequence than all else, hay made from grass in which the seeds and consequently the juices are nearly matured, is far more nutritious, will go much farther in feeding, and bring horses or cattle through the winter much better than early cut hay.

If experience and experiment had not shown this to be the fact, analogy would be conclusive in the matter. What substance is there intended as food for man which is not improved by arriving at maturity? Wheat, corn, potatoes, and fruit of all kinds, are justly considered nearly worthless so far as nutrition is concerned, if gathered before approaching to maturity; and in most instances perfect ripeness is necessary to give an article all its value. Animal nutrition is carried on in the same manner as in man, and there can be no good reason given, why like causes in both cases will not produce like effects. We think the legitimate conclusion then is, that grass should be cut before it becomes so ripe as to part with all its juices and aroma, and not till the juices are so matured as to lose little by evaporation, and the seed partially capable of germination. Such hay cured without damage, will never be refused by cattle or horses, and a great saving in quantity will be effected.

Improving Strong Clay Soils.

Such of your readers as may be forming new gardens, or wish to improve old ones, where the soil is a heavy tenacious clay will perhaps be gratified to learn that by the process of *burning*, the clay may be rendered a very fertile and friable soil. This process of fertalizing clay is not a new one, but the practice has of late become so general in some parts of Europe, as no longer to be a matter of novelty or experiment, and the success which follows its adoption has in many cases been truly wonderful, transforming a stiff unproductive clay into a soil of great fertility, easily worked and totally changed in its appearance. A common remedy resorted to in the case of a superabundance of clay was the addition of large quantities of sand; but this is in many cases expensive, and in none so effectual in producing a fine mellow soil.

The *modus operandi* is as follows. A trench of the desirable length is thrown out, about six or eight feet wide, and three feet deep. At the bottom of this are placed layers of small brush, faggots, &c., and at the top it is filled with old roots, larger wood, &c. The fire is then lighted, and when ignition has commenced the whole is covered with clay, except a few vent holes for the admission of air. As the combustion increases, the whole mass becomes heated, and additions of fresh clay are made to the heap, until it reaches the height of eight or nine feet, and there is seldom any necessity for a renewal of fuel. After the burning is completed, the heap is thrown down, and scattered over the surface.

The *rationale* of burning soils, according to Sir Humphrey Davy, is founded in well known chemical laws. Nearly all soils are composed in their bases of primitive earths and oxide of iron. Certain proportions of these earths have so strong an attraction for each other as to form a single homogenous compound, which resists, in a great measure, the action of the air and water. Calcination, or burning by changing these proportions, breaks up that chemical attraction, prevents so intimate a co bination, and produces a light porous soil, capable of absorbing water readily, and admitting the air with facility to the roots of vegetation. When the clay contains a superabundance of calcareous matter the latter is converted into an active fertalizer of plants. Peat soils, containing too much inert vegetable substances, are also much improved by burning.—*A. J. D. Botanic Garden and Nurseries, Newburg, N. York.*

From the N. Y. Star.

The Native American Silk Worm.

New Plan for the Worms to wind the Cocoons.

Mr. Editor—Since the receipt of your paper yesterday I received the Nantucket Inquirer of 15th inst., in which Mr. Jenks asks for further intelligence in relation to the article on the Silk Worm, published in the Star of the 3d inst. As the words, "six different plans for the worm to wind the cocoon," were published verbation as I expressed them in conversation with you, the call seems to require some explanation on my part. I will give it briefly thus: "It is so many contrivances to accommodate the insect in its preparation for 'winding up,'" or so many different contrivances *on* which (not round which) the larvæ may suspend and wind the cocoon. One of the plans may be described thus: nine lath ¼ inch thick, 1¼ inch wide, and 40 inches long, placed on edge, horizontal, parallel to each other, and 1 inch apart in the clear; these are connected by lath, 11¼ inches long, fastened across the ends; the whole forming a grate of 9 bars 11¼ by 40 inches. Five of these grates, placed parallel to and above each other, ¾ inch apart in the clear, connected by a single nail at each corner, with lath 9¼ inches long, standing vertically on end, forms *one plan*, which is probably the best of the six, and in the opinion of some good judges is superior to all other plans (not excepting the European plan of bushes and branches of trees) for economy, both in the *space* which it occupied to accommodate an equal number of worms, and the *expense* of construction. The 46 lath required for its construction are worth 6 cts. and can be made with the labor of one hour, worth 12 cents—making in all 18 cents. The worms wind the cocoons between the bars and between the grates, when by removing the 4 vertical lath at the corners, the cocoons can be cleared out in a few minutes, certainly in less time, and in better condition, than the same number can be removed from among bushes and trees.

The native American Silk Worm feeds on elder, which is its principal food, and from it spins a cocoon of good silk, strong, soft and lustrous, though coarser than that of the Asiatic worm. The smallest cocoon in my possession, from the native American worm, is 70 per cent heavier than the heaviest of the Asiatic. A fair average of the native co-

coons are nearly 300 per cent heavier than most of the Asiatic. I weighed to-day a fair average of the native American cocoons with 4 different kinds of Asiatic, from my own raising this year—the weights show the quantity of silk, *without* the chrysalis as follows:

Native American Cocoon	17	grains.
Asiatic large white Cocoon	6½	"
" bright white Cocoon	4	"
" Monti di Brianza, a pale yel.	3	"
" Golden Yellow.....	2	"

The ova of the two last named were imported by Mr. Tinelli the present year. They are much cultivated in Italy and Spain, and produce the finest silks in Europe. The Monti di Brianza is particularly famed for receiving and retaining the most beautiful dye. By the above you will perceive that the Native American furnishes 850 per cent more silk than the Golden Yellow Asiatic.

A description of the Native American Silk Worm may e able Mr. Jenks to recognize an old and familiar acquaintance, which he has often frightened from its resting place with the exclamation, "Oh! what a beautiful butterfly," pronounced in a tone too loud and too harsh for such sensitive antennae.

It ranks in Linne's System of Nature in the Animal Kingdom, Class 5, insects Order III. Lepidoptera, Genus, Phalaena. The Moth or perfect insect is without proboscis,and therefore cannot eat; it has Antennae 2 pectinate and black, head white, eyes 2 black, thorax red, abdomen entirely surrounded with alternate red and white bands, wings 4 brownish gray, lighter in the male, interior of 2 upper wings red, with one large ocellate spot near each exterior, and two smaller and less distinct in the margin; from the anterior to the posterior is a band of 2 distinct white and red lines, between this band and the interior is a large white lunate macula, surrounded with red and black; the last described band and lunate macula are the same in lower wings; across the exterior and margin is a band of 4 distinct lines ashy gray, black, cream, and ashy gray; lower wings the same. The larvae is greenish, without hair except a few on 2 protuberances, and feeds mostly on elder. The ova is cream color clouded with redish gum, with which they are fastened to the leaf or bark. The pupa or chrysalis is dark brown enclosed in a cocoon of strong, soft and lustrous silk. It is a native of the North American States, and is found in no other country. I have 11 of the cocoons in my possession, 4 of which I found on Manhatten Island, near Harlem, N. Y., and 7 in the forest of Bergen co., N. J.

I intend this summer to manufacture some sewing silk from the native American Cocoons, and hereby promise to send Mr. Jenks one skein of it, provided he will "contrive" some better name than "*contrivance*" for the *plan* of lath described in this communication. Yours, &c.

C. F. DURAT.

Jersey City, July 21, 1837.

From the Horticultural Register.

On the Disease of Young Apple Trees.

Having, for some years part, discovered that there was an evil attending our young apple trees, I have made some observations on the subject, which I shall communicate, in hopes they may be the means of leading to the discovery of some more effectual remedy.

The difficulty is what is commonly called "lice," and is generally considered, by a superficial observer, nothing more than a kind of natural cutaneous eruption of the bark; but they are, in fact, living lice. They appear, in form, like half a kernel of rye, but not more than one tenth part so large, with the flat side sticking to the smooth bark of the tree. They resemble blisters and are near the color of the bark of the tree. These blisters contain nits, or eggs, in form like a snake's eggs, which, in a common season, begin to hatch about the 1st, and finish about the 15th, of June. These nits produce a white animanculæ resembling a louse, so small that they are hardly perceptible by the naked eye, which, immediately after they are hatched, open a passage at the end of the blister, and crawl out on the bark of the tree; and there remain, with but little motion, about ten days, when they stick themselves to the bark and die. From this little carcase, arises a speck of blue mold, which is most plain to be seen between the 15th and 25th of June, and continues about twenty days, and then gradually wears off until the old carcase appears, which, by this time, is formed into a new blister, and contains the spawns, or nits, before-mentioned. These blisters prevent the circulation of sap in the tree, in the same manner that filthiness and diseases of skin retard the circulation of blood in the human system, and prove as fatal to the tree as the canker worm.

In order to remedy the difficulty, I have made some experiments, within a few years, but principally to no good effect—not knowing, then, the particular season when these animalculæ could be most easily destroyed. This I have found to be any time between the 1st of June and the 10th of July. The application that I have found most effectual, is washing the tree with ley. Lime, also, mixed with ley, to the consistency of white-wash, may be useful. And, although the small branches cannot be cleansed in this manner without much difficulty, still if the body of the tree, and the branches near the body, are kept clean, until there comes a rough bark, I think the lice will not kill the tree. Some people have recommended the application of train-oil to the tree, which, indeed, is a powerful antidote against lice; but, being of a glutinous nature, is very detrimental to the tree. Grafting has been proposed, which I since found to have no effect, at all, on the lice, except when the stock can be conveniently cut down below the surface of the earth;—this process will exterminate them without fail.

These lice are natural in the uncultivated forest, on what is called moose-wood and other bushes. Much care should be taken respecting lice, on their first appearing in an orchard, or nursery, as the cutting down and destroying of a few young trees, is of no importance, compared with the difficulty of having an orchard overrun by them. Yours &c.,

Littleton, June 20th, 1837. N. HARWOOD.

Budding, or Inoculating.

To bud trees, let the following method be adopted: procure a knife which has a thin blade, and a sharp ivory handle; the use of the blade is to prepare the buds, and the handle is used to raise the bark of the stocks, so that the buds can be easily inserted. Have some good strong bass in readiness, and then take some good thrifty sprigs from healthy trees of the sorts you intend to propagate. When all is ready, make a cut in the bark of the stock transversely, and from the middle of this cut make another downwards, at least two inches in length, so that the two cuts may be in the form of a T; then take one of your sprigs and with expedition proceed to take off a bud: this is effected by entering the knife a little more than half an inch below the bud or eye; force your knife into the wood, drawing it under the bud, and cut the piece off across the shoot; then immediately let that part of the wood which was cut off with the bud, be separated from it, which may be readily done with the knife, by placing the point of it between the bark and wood at one end, and holding the bark in one hand, pull off the woody part with the other, which will readily come from the bark, if the tree from which it was taken be in vigorous condition. Examine the bark, so as to be satisfied that the bud remains perfect; if there is no hole in it, let it be immediately inserted into the stock, observing for the reception of it, to raise with the handle of your knife the bark of the stock, downwards on each side from the cross cut, and thrust the bud in between the bark and the wood, applying it as close as possible. As soon as the bud is put in its place, tie it round securely with the bass, beginning a little below the cut, and proceeding upwards till you are above the cross cut, taking care to miss the eye of the bud, just that it may be seen thro' the bandage of the bass. About a week or ten days after the stocks have been budded, they should be examined, when such as have united will appear fresh and full, and those that have not taken will appear decayed; in the former case the bandage may be left off, and in the latter case, the stock may be budded in another place, provided the first operation was done in the month of July or early in August, as these are the two most preferable months for budding fruit trees in general. Budding is, however, often attended with success, if done in September.

SCALLOPE BUDDING is performed by cutting from a small stock, a thin narrow scallope of wood, about an inch in length, and taking from a twig a thin scallope of wood, of the same length; this is instantly applied, and fitted perfectly at top and bottom, and as nearly as possible on its sides, and firmly bound with wet bass matting. This mode may be practised in the spring, and if it fails, it may be done again in the month of July. The French practice this mode on roses.—*Complete Practical Farmer.*

Disease of Fruit Trees.

Mr. SMEAD:—Having observed within the last few days, that the peach trees in this vicinity, are suffering from what I call the yellow curl, permit me through your paper to suggest a remedy.

This disease is caused by an insect that deposites its larvæ at the root of the tree. My remedy is, to remove the earth from around the roots, to the depth of from six to twelve inches from the surface, and pour around the roots a pail full or so, of the lye of wood ashes, then to fill in round the tree with wood ashes. This will prove a sure remedy and the ashes around the tree will form so dense and hard a body, as to prevent the insect frem burrowing again; as wood ashes is a good manure for fruit trees, it is well to remove old ashes, and replace them with new, every spring and fall. By following this method, peach trees may be kept free from insects, and be preserved in bearing order. Wood ashes has a good effect around the cherry and plumb.

The cherry and plumb are subject to a disease (also occasioned by an insect) called the blight.—The insect penetrates the branches, causing a gum to exude, and making black, rough, wart like protuberances, which soon causes the death of the tree. The only remedy I know of, for this disease, is the pruning knife; cut off the branch whereon it appears, as soon as discovered: should it have progressed much in the top of the tree, cut the whole top off at once, if you wish to save the tree; new branches will shoot out, and you will, in two or three years, have a vigorous bearing tree again. Should the disease appear in the body of the tree, remove every appearance of it with the knife; and if the tree is weakened thereby, support it by means of stakes, and the difficulty is remedied.

Against the attacks of the caterpillars, my method is to cut the branch off, bearing the nest, and destroy them by burning it, being careful that not a worm is left to form a new colony. Firing into a nest from a musket, smoking with brimstone, and all the suggested remedies of this kind, but increase the evil, scattering the worms, and forming a dozen nests from one. Smoking with brimstone, destroys the branch, and not more than half the inmates of the nest, for sulphuric acid gas is full as fatal to vegetable, as animal life. A little care and watchfulness, will prevent the inroads of those insects, and the gardner will be amply repaid for the same, by the thriving condition of his trees, and the abundance of his fruit.—*Ohio Argus.* H.

To cure a foundered Horse.

A highly respectable gentleman of this county, a few days since, communicated to a friend of ours the following cure for a foundered horse. He has tried it with complete success in five different cases, some of them very severe ones, and has heard of its success in many more:

Curry the horse with sharp a curry comb, very briskly against the hair, from his hoofs over his whole body, and with sufficient severity to draw blood slightly in places; then jump on him, run him some distance, and he is well.—*Lexington (Va.) Gazette.*

A Butter Tree grows in Africa cultivated by the natives, and yielding a vegetable butter of an excellent quality, contained in kernerls inclosed in a sweet pulp, under a green rind, and is separated by boiling.

A Tallow Tree grows in China, which supplies the inhabitants with Tallow for candles.

The Milk Tree, and the Bread Fruit Tree, are also found in the tropical regions. And thus nature furnishes for the use of man, and *almost* without his labor, not only Bread and Milk, and Butter, but candles also; besides Locust and wild Honey, and many other kinds of edibles.

COMMUNICATIONS.

Sap of the Sugar Maple.

In the April number of the North American Review is a well written and valuable article on American forest trees, in the course of which, speaking of one of our most beautiful trees, the sugar maple, the writer says—"The sap of the tree, or maple juice, as it is called, is greedily coveted by wild and domestic animals, who break through enclosures for the sake of obtaining it, and is generally an agreeable and healthy beverage. We have been informed, however, of one instance in which it proved of a highly intoxicating quality. This circumstance occurred about thirty years ago, in the western part of the state of New York. All the sap procured from the maple trees of an extensive district, was found to have undergone a vinous fermentation; and children who drank it freely were in some cases rendered delirious for two or three days. We have heard of no other instance of this phenomenon, nor have we learned that any probable explanation has been given of its cause."

We shall not pretend to give a "probable explanation" of this fact, for though we have lived in the western district some thirty-three or four years, yet such an instance of vinous fermentation of the *sap* of the maple has never fallen within our knowledge, though the process of making sugar is familiar to us in all its stages. But we well recollect that in the early settlement of the country, before apple trees had been planted, and of course cider mills were not, that the dependence for vinegar was on the sap of the maple. To make vinegar it was made stronger by boiling, and then allowed to first pass the vinous, and then the acetous fermentation. If by the process of boiling, the sap had reached the proper point of strength, when the vinous fermentation was complete, the liquor furnished one of the most pleasant of drinks, according to our remembrance, the taste being between metheglin and wine, and if taken in considerable quantities decidedly intoxicating. The stage in which it was drinkable was, however, very short, the acetous fermentation commencing in a few hours. That the sap in its native state should develop sufficient alcohol by fermentation to produce intoxication, or delirium, we can hardly conceive, and think the statement must have originated from some such process as we have described. OBSERVER.

Blue Grass.

MR. EDITOR—I should like to learn from you, or some of your correspondents, whether any attempts have been made in this part of New York to introduce the *Kentucky Blue Grass*, into cultivation here, and also how it is distinguished from what is called blue grass in this region. All accounts agree in stating the Kentucky blue grass as one of the most luxuriant and nutritive of grasses, peculiarly adapted to shady pastures, or open woodlands, and of course if there is no natural obstacle to its growth among us, precisely such a grass as is required here, particularly in the dairy sections or farms of New York. The great excellence of Kentucky grass fed beef is by some attributed to this grass; certainly in those sections of Ohio where this grass has been introduced, as in the Sciota valley, the reputation of the stock and beef is proportionably high. Our woodlands are becoming more and more thinned out; and it is desirable to have something valuable to take the place of the noxious weeds that will occupy the half cleared land, unless the ground is covered with something useful. If you can give any information respecting this grass, the soil most suitable for its growth—(it may be remarked that as Kentucky is a limestone country, there is strong presumptive evidence that the limestone sections of this State would be equally favorable to the plant)—whether seed can be procured in this State, and such other particulars as you may deem useful, you would at least oblige one SUBSCRIBER.

Barns—Inquiry.

MR. TUCKER—I have just examined all the back volumes of the Farmer to gain some information as to the comparative value of stone and wooden barns, but have closed the several volumes no wiser on the subject than when I opened them.

I have often heard it argued against barns constructed of stone, that they were not sufficiently ventilated, and as I wish to build one of some kind, and am of course anxious to use that material that will make the best one, I know of no better way to gain information on the subject, than by making the inquiry through the columns of the Farmer.

Any information which you or any of your correspondents can give on this subject, will be thankfully received by your friend, G. H. M.

Farmington, July 26, 1837.

Fattening Cattle.

The fattening of cattle demands considerable and constant attention, and the great object is to fatten quickly. An animal when in a state of rearing, may be considered as a vessel open at both ends, in which the supply and the waste being nearly equal, it can never be filled; fattening the animal may be considered as an attempt to fill the vessel, and this can only be done by an excess of supply. The waste being the same as before, the excess must be great; if it is not so, the vessel may be filled to a greater height than before, without ever becoming full. An important hint might be taken from this simile, by many farmers, who know little of the difference between feeding and fattening. Cattle, sheep and swine, may be kept for months, and fed with a view to fattening them, without their gaining a pound of meat.

The age at which cattle are fattened depends upon the manner in which they have been reared; upon the properties of the breed in regard to the propensity to fatten earlier or later in life, and on the circumstance of their being employed in breeding, in labor, for the dairy, or reared solely for the butcher. In the latter case the most improved breeds are fit for the market when about three years old, and very few of any large breed should be kept more than a year longer. As to the cows and working oxen, the age of fattening must necessarily be very indefinite; in most instances the latter should be put up to feed after working three years, or in the seventh or eighth year of their age.

The food on which cattle are fattened in summer is grass, commonly on pastures, but in some instances cut and consumed in the yard. In winter, hay and roots, and perhaps Indian corn, meal, &c., are used.

When cattle are fattened on grass, the best way is to take young cattle, particularly three or four year old steers, in November, to keep them in the yard all winter, fed partly with straw and partly with hay, but so as to have them in good order in the spring; and these cattle should not be of the largest sizes, but rather middling, such as will come to about 600 weight the four quarters when fattened. They must have good pasture for four months. But as we cannot control the seasons, in case a severe drouth takes place, the only remedy is a little grain, or rather meal, given daily. Provided they are thus fed, they will be ready for sale by the middle of September, and generally at this time cattle of the above size are in good demand; if kept later, the markets are glutted, and the price always lower.

Stall-feeding, however, is common, and when judiciously conducted, probably the most eligible method; but the practice of stall-feeding with grain and oil-cake is to be condemned, because it is the most expensive method of sustaining animals. Whatever superfluous grain is raised above the quantities necessary for actual domestic consumption and seed, should be sold, and the money laid by to defray the charges of husbandry; but feeding up the grain, and purchasing oil cake and salt into the bargain, for a contingency which is altogether speculative, is, we think, very injudicious; for the average price of beef in the spring of the year rarely warrants such an expensive method of keeping it up.

With respect to feeding, the first rule is, a little at a time and often; because experience has shown that animals that eat much in a short time, do not fatten so well as those which eat less, but more frequently.

The two great points in feeding animals to profit are, regularity, and a particular care of the weaker individuals. On the latter account, there ought always to be plenty of trough or rack room, that too many may not feed together, in which very common case the weaker are not only trampled down by the stronger, but they are worried and become cowed and spiritless, than which there cannot be a more unfavorable state for thriving; besides, these are ever compelled to shift with the worst part of the food. This domineering spirit is so remarkably prevalent among horned cattle, that the master beasts may often be observed running about, and absolutely neglecting their own provender, for the sake of driving the inferior from theirs. This is much oftener than is suspected, the chief reason of that difference so visible in a lot of cattle, after a winter's keep. The weaker animals should be withdrawn and fed apart; or the master beasts should be tied up during their meals. With respect to feeding, it is recommended, from good authority, to begin the course with cabbage and turneps, then to employ carrots and potatoes, and lastly, Indian, oat, or barley meal.

Cabbages are said to possess the property of fattening cattle, not only more expeditiously, but in less proportion than turneps; an acre of the former having been found to fatten one in four more than the same extent of the latter crop. A cow will eat from 100 to 150 lbs. of cabbage per day.

Carrots.—This root is said to have the advantage of turneps, not only in its being a richer and more nourishing food, and in yielding a larger produce, but also in never being annoyed or hurt by insects, and therefore an unfailing crop.

Carrots, when fed with mangel wurtzel, in the proportion of one-third of the former to two-thirds of the latter, with a little clover or other hay, were found to be as one to five in fattening cattle, when compared with the Indian corn, and a proportional quantity of hay. (*Com. of J. Williams, Esq., Mem. of Penn. Ag. Soc.*)

Turneps.—Cattle are fed with turneps, either by being tied to upright posts within doors, or they are suffered to go at large in the straw yard. This last is greatly the better mode of feeding, the turneps being supplied from troughs or otherwise, and a shed for shelter being always at hand, and open to the cattle to repose in. It is well, however, that too many animals of strength and size be not put together, lest they disturb each other's feeding. When cattle are of value and put up for quick fattening, it is common to cut off the leaves and tails of the turneps, giving the leaves to the younger and less valuable stock, and the bulbs only to those which are to be fed.

Young cattle not intended to be immediately fattened, receive only a limited portion of turneps, their principal provender being straw. By receiving a portion of turneps with their drier provender, these animals are kept in a much more healthy condition than if confined to the latter food, and continue to grow throughout the whole season, instead of pining away at the time when green herbage can no longer be found for them.

Cattle fatten much faster with clean turneps than with such as are dirty, and therefore they should never be given without being previously washed. Dirty turneps are also apt to scour them.

As turneps are generally topped when they are laid up, these tops may be fed out as long as they last.

Cattle fed on turneps are said to make better beef than when fed on oil cake, it being usually rather rancid when made up into this article. Calves are easily taught to eat them, by tempting them with small pieces at first, and soon become fond of them; and if fed abundantly with them will hold their condition and continue to grow the whole winter, which insures the desirable point of early maturity. Animals who have plenty of turn ps scarcely ever wish to drink. Cows have been kept a whole winter within doors, on turneps, and never wanted water.

The result of feeding two steers twenty five weeks upon turneps and straw, the turneps half Swedes or ruta baga, are given in the Quarterly Journal of Agriculture. The steers were half and two-thirds short horned blood. One gained 406 lbs. and the other 336. The daily consumption of turneps was about 200 lbs. per day to each. Four bullocks fed seventy days upon ruta baga, at the rate of two bushels per day each, eating scarcely any thing else, and refusing oil cake, produced for the turneps thus fed $75. They required no drink.

Potatoes.—In the application of patatoes as food for live stock, they are often joined with hay, straw, chaff, and other similar matters, and have be n found useful in many cases, especially in the latter winter months. They are much more nutritive when boiled than in th ir raw state. They were formerly cooked in this way, but are now very generally steamed. Washing was formerly a tedious disagreeable business, but it is now rendered an easy matter, whether on a large or small scale, by the use of the washing machine.

Every creature appears to relish potatoes, particularly when they are steamed or careful y boiled. It is asserted that a cow may safely eat them wh n in a raw state, to the extent of perhaps fifty pounds per day, provided the eyes have broken and begin to shoot. Whenever they are given raw, however, they should be chopped into pieces to prevent accidents. The utility of raw potatoes is, however, doubted by many. Perhaps straw, hay, and chaff, might be employed as a very proper adjunct, with a few ounces of salt added to each feed.

Mangel Wurtzel.—"Two oxen were fed abundantly on Swedish turneps and mangel wurtzel, and the result was that they increased in weight, each of them, when upon mangel wurtzel, much more rapidly than when upon Swedish turneps, in proportion to the weight which they consumed. I next year," says the writer, "tried the same sort of experiment on a single beast, and the result was similar, but rather more favorable to mangel wurtzel. It is said that giving large quantities of mangel wurtzel to beasts in a low condition, has been found very dangerous, but I have never found any bad effects from it, either to cattle or sheep. It sometimes happens that when oxen are first put to mangel wurtzel, after coming from the pastures, it disagrees with one or two individuals; in this case I cease giving it to these for one or two days, and when put to it again, it has always agreed with them very well."

A writer in the Genesee Farmer prefers mangel wurtzel to turneps as food for cattle.

Indian Corn, Indian, Oat, and Barley Meal, are all employed in fattening cattle. Indian corn is sometimes sown to be used as fodder in its green state. In this case it is cut and fed out when the ears are in the milk. An acre of ground perfectly managed will, in this way, yield twelve tons of green fodder, probably a richer and more nourishing food than any yet known.

Some persons are in the habit of taking the tops from the corn at a proper season. These should be immediately conveyed to a suitable place, and two day's sun will convert them into the best fodder the farm produces. The main body of the stalks, too, with the blades, after the ears are harvested, should be cut close to the ground, cured, and taken to the sheds. They should be cut or chaffed with the straw-cutter, and when given alone or with other food, will be a much more nourishing aliment.

Besides the ordinary mode of feeding Indian meal, it has been suggested, on the authority of a practice which prevails in France, whether they might not be beneficially fed in a fermented state. A writer asserts that oxen made half fat, or in good plight, on grass or turneps, are then finished in France upon a sour food prepared as follows: *Rye-meal,* (for which Indian or buckwheat may be substituted) with water, is made into paste, which in a few days ferments and becomes sour; this is then diluted with water and thickened with *hay,* cut into chaff, which the oxen sometimes refuse the first day; but when dry, they drink and prefer it. All the husbandmen are decidedly of opinion that they fatten much better because of the acidity. They give it three times a day, and a large ox eats 22 lbs. a day.

The practice of grinding Indian corn and cobs together, has been successfully adopted in some places, as furnishing a superior provender. This is stated to be the ca e in the west; and a gentleman in Shrewsbury, Mass., has for seven or eight years used corn and cobs cracked and ground together, and says it is the best food he has ever used for fattening cattle.

A little town near Frankfort in Germany, is noted for its remarkable fine cattle. They are fed in the following manner: Straw is cut short by means of a straw-cutter; it is then put into a cauldron, with the addition of potatoes and carrots, and boiled till it forms a kind of jelly; this mixed with a sufficient quantity of water, is served to the beasts. The animals so fed require no water, and so well do they thrive on this mess, that they are, notwithstanding the summer labor, ready for t .e butcher at the end of the year.

All sorts of grain, which is intended to be given to cattle or horses, is best ground. In order to obtain the greatest benefit from it, boil it in water, and while hot add cut straw, stirring it well and when cool it will be fit to feed out.

Mr. Landon, of Litchfield, Conn., found that by boiling two quarts of flax seed, which was sprinkled on cut straw that had been previously scalded and seasoned with salt, together with oil cake and oat-meal, and these materials worked together in a tub, with a short pronged fork, he produced a mash on which he fattened a heifer and an ox, which netted him more than he had cleared before in fattening oxen and cows for fifteen years; and he ascribed it chiefly to the use of the flax seed.

A very successful rearer and breeder of neat cattle in Mass. (Col. Jaques,) recommends from actual experience the following: Take two bushels of Ruta baga cut fine; one bushel of wheat bran; half a bushel of powdered oil cake; English hay, barley straw, and salt hay cut, of each seven bushels; water, ten gallons. Let these be perfectly mixed.—Give a bushel of this mixture to a cow of the common size every night and morning, and proportionably to greater or smaller animals.

Hay, straw, corn tops or blades, and even the stalks, afford abundant more nourishment when cut or chaffed with a straw cutter. One bushel of chaffed hay at a mess, given in a trough three times in twenty-four hours, is sufficient for a horse, ox, or cow, and is equal nearly to a third more of that quantity given in the ordinary way.

Salt your clover and other succulent as well as coarse hay. But over salting diminishes the nutriment. More than a peck to a ton is superfluous. Half that quantity is often sufficient. Feeding your stock by weight and measure of food, will not only save provender by its orderly distribution, but frequently saves the lives of animals, too often starved by neglect, or gorged and destroyed by profusion.

Raw and prepared food.—Unless food be thoroughly deprived of its vegetative powers before it enters into the stomach, the whole nourishment which it is capable of affording cannot be derived from it. In the case of the leaves and stalks of vegetables, this is generally effected by mastication; but it requires some care to accomplish it in case of grains. Hence the advantage of mixing corn given to horses or cattle, with chaff or chopped straw, and hence it is supposed by some, that the instinct which fowls have to swallow small stones, is intended by nature for the same object. But the most effectual mode of destroying the living principle, is by the application of heat; and if vegetable food of every kind could be steamed or boiled before it is given to animals (at least in Winter, and in fattening for the market or feeding for milk,) it is rendered probable, by analogy and experiment, that much more nourishment would be derived from it.

An apparatus for steaming food for cattle should be considered as a n cessary appendage to every arable and dairy farm, of a moderate size. It has been long known that many sorts of roots, and particularly the potato, become much more valuable by undergoing this sort of operation. And it is equally well known that when thus prepared they have been employed alone as a substitute for hay, and with cut straw both for hay and corn, in the feeding of horses as well as other animals. To a farmer who keeps many horses or cattle, or even swine or poultry, the practice of boiling their food in steam is so great a saving and advantage, that it deserves the most particular attention. Though potatoes have often been given raw to both horses and cattle, they are found to be infinitely preferable, when cooked by steam, as they are thereby rendered much drier and more nutritive. Turneps and other roots are also much improved, as food for cattle, by a similar process.

Boiled clover-hay is found very good for keeping swine, during Winter; and we are of opinion that if fed to milch-cows, during that season, it would greatly improve the quantity of their milk, and keep them in better order than when fed dry to them.—We believe this to be well worthy of a fair experiment, by having a vat or box to hold the hay sufficiently large for the purpose.

A steam boiler is generally made by setting a kettle, holding twelve gallons or more, in a furnace of brick or stone; and over this a hogshead with one head out, and the other bored full of holes, is set so close, that the steam of the kettle, when boiling, can only rise through the holes, and thence ascend among the articles to be boiled in the hogshead, and pass off at the top. In this way a hogshead full of potatoes will be nearly as soon boiled as a small part of them only could have been, if placed in the kettle underneath.

As the kettle must be so closed as to prevent any steam passing off, but through the bottom of the hogshead or vat, a pipe or tube must be set in one side, through which, with the aid of a tunnel, the water is poured into the kettle, as often as occasion may require. When poured in, the tube is to be stopped with a plug for the purpose.

Grain of all kinds may be steam-boiled to great advantage, for feeding and fattening cattle; but in that case, it is requisite to have the bottom of the hogshead covered with a cloth, to prevent the grain running down through the holes.

By experiments which have been accurately made in Pennsylvania, upon Indian corn and potatoes, used for fattening swine, it was found that they increased in weight one-third faster on the boiled than on the unboiled food; or, in other words, they gained three pounds when fed on the former, where they only gained two pounds when fed on the latter. We are fully of opinion, that steam boiling food, for feeding or fattening all sorts of cattle, generally increases the value of the food as much as forty or fifty per cent.—*Practical Farmer.*

Choice of Fruit Trees in the Nursery.

In the choice of fruit trees, all possible care and attenti n are necessary; for to have trees that do not answer the expectations of the proprietor, is a great disappointment. As the young gardener may need such directions as are calculated to govern him in his choice, I shall endeavor to furnish them. Of whatever species or variety of fruit trees are wanted choose those that are vigorous and straight, and of a healthy app arance. Whether they have been grafted or budded, be careful to select such as have been worked on young stocks. Grafts and buds inserted into old crooked stunted stocks, seldom succeed well. Trees that are healthy, have always a smooth, clean, shining bark; such as are mossy, or have a rough wrinkled bark, or are the least affected by canker, should be rejected. Canker is discoverable in the young wood and generally two or three inches above the graft or bud. If the tree be an Apricot, Nectarine, Peach, or Plumb, and any gum appears on the lower part of it, do not fix upon that. Let the tree you select (if a dwarf) be worked about six inches from the ground, and only one graft or bud should be upon each stock, for when there are more, the tree cannot be brought to so handsome a form.

In some of the preceding articles, I have shown that some descriptions of trees may be transplanted with safety, even when far advanced in growth.—

When trees of four or five year's growth, after heading down, that are healthy, and well furnished with fruit-bearing wood, close up to the centre of the tree, can be obtained, they will do very well; but great care is requisite in taking up, removing, and planting such. Let the tree be taken up with as great a portion of the roots as possible, taking care not to bruise, split, or damage them; for want of attention to these points, trees often become diseased. Whenever (notwithstanding all due caution) any roots have been accidentally broken, split or otherwise damaged in taking up the tree, let them be cut off; or if they cannot be well spared, let the damaged or bruised part be pared clean with a sharp knife, and a portion of the following composition be spread over the wound, in order to keep the wet from it, which would otherwise injure the tree. To equal parts of soft soap and tar, add a little beeswax; let them be boiled together, and when cold they may be used. The necessity of pruning and dressing mangled roots, is more particlarly required in trees of the stone fruit, suce as Apricots, Nectarines, Peaches, Plumbs, &c.; for without the application of some remedy, they gum at the roots which defect if not counteracted, very materially injures the upper part of the trees, which may become so affected as never to recover afterwards; therefore, great care should be taken not to occasion such injury; and when accidents happen, all due caution and application are necessary to promote a healthy andvigorous growth.

A young tree, likely to do well, should have roots nearly corresponding to the branches; at least, it should have one strong root in a similar proportion to the bole of the tree with a proper distribution of branching fibres. Healthy roots are always smooth and clear, the color of them varies a little according to the sort of the tree, but the older the roots are, the darker the color is.

After the tree is taken up, be careful in conveying it to the place where it is to be planted, so that the roots are not chafed or rubbed. If trees are to be conveyed a considerable distance, they should be well guarded by straw, or otherwise, in order to prevent injury. All damaged, bruised roots should be pruned as soon as the tree is taken up, but if it be necessary to prune away any sound good roots, such pruning should be delayed until the time of planting. In pruning away roots, always let them be finished by a clear cut and in a sloping direction, letting the slope be towards the under stratum, so that the wet may not be allowed to lodge upon the part so cut.—When trees are planted at an advanced season, in the spring of the year, it will be necessary to prune the tops; and if trees are removed that have been trained three or four years, and are not properly supplied with young wood, they must be cut down either wholly or partially, in order to obtain a sufficiency. In practicing this upon Apricot and Nectarine trees, &c., always prune so as to have a leading shoot close below the cut, as it is very rare they will push a shoot below, unless there be a lead. This attention is not so particularly required in the Pear, &c., as such will generally push forth shoots, although no leading ones were left; but in all kinds, the younger the wood is, the more certain are shoots to be produced. If a tree that has been under training for one or two years, should only have one good strong leading shoot, and two or three weaker ones which do not proceed from it, let the weak shoots be pruned clean away, and shorten the strong one, from which a handsome head may afterwards be formed.—*Bridgeman.*

The Currant.

This is a genus of well known shrubs, much cultivated for their fruit. It is a native of the northern parts of Europe, and found in hedges and woods in England; and there are some species indigenous in America. The fruit, being of an agreeable subacid taste, is generally relished, both as a desert, and in pies and tarts; it is also much used in making wine, and is grown to a considerable extent for that purpose in Essex, Kent, and about Pershore, in Worcestershire, England. There are ten species cultivated in the garden of the Horticultural Society of London, comprising twelve varieties of red, ten of white, five kinds of black, together with champaigne, mountain, rock, upright, Pennsylvanian, &c. Any number of varieties of the red and white may be procured from sowing the seeds, but they are generally propagated by cuttings of the last year's wood which should be of sufficient length to form handsome plants, with a clear stem, ten inches high. They will grow in almost any soil, but prosper best in one loamy and rich. The best flavored fruit is produced from plants in an open free situation, but they will grow under the shade of walls or trees and either low as bushes, or trained as espaliers. They bear chiefly on spurs, and on young wood, of from one to three years' growth, and therefore, in pruning, most of the young wood should be cut to within two or three buds of that where it originated. After the plants are furnished with full heads, they produce many superfluous and irregular shoots every summer, crowding the general bearers, so as to require regulating, and curtailing, both in the young growth of the year, and old wood. The principal part of the work may be done in winter, or early in the spring; but a preparatory part should be performed in summer, to eradicate suckers, and thin the superfluous shoots of the year, where they are so crowded as to exclude the sun and air from the fruit. In training espaliers and for standards, two branches are laid in a horizontal direction along the bottom of the trellis, perhaps half a foot from the surface of the earth, and the growth from these of all upright shoots, which will admit of being arranged at the distance of five or six inches of each other, is encouraged. Fan standards are sometimes trained with the branches radiating from the crown of the stem.

The black Currant, or *Ribes nigrum*, is common in moist woods in Russia and Siberia; its culture is similar to that of the red, but as it is less apt to bear on spurs than on young wood, the shoots should not be so much shortened in this as in the other.

Currant bushes will require to be planted at different distances, according to the situation and mode of training, &c. When planted in beds, borders or squares, they should be six feet apart, but if trained as espaliers, they will require to be eight feet apart.

Many people dislike the flavor of black Currants, they are, therefore, not much used in the kitchen or desert, and seldom in wine making. They make a jelly or jam, in estimation as a gargle for inflammatory soar throats. "In Russia and Siberia, wine is made of the berries alone, or, fermented with honey, and with or without spirits. In Siberia they make drink of the leaves; these tincture common spirits so as to resemble brandy, and a few of them dried and mixed with black tea, answer all the purposes of the green material."—(*Loudon.*)

All kinds of Currants may be forced by placing them in any forcing department in January or February; they will produce ripe fruit in April and May.—*Bridgeman.*

Grubbing Machine.

Travelling lately on the banks of Connecticut river, in the vicinity of Hanover, I observed hundreds—and I believe thousands of rods, of strong substantial and durable fence made of white pine stumps extracted from the ground with their roots. Coriosity led me to inquire by what power and machinery, the operation of extracting was performed. An obliging stranger showed me one of the machines and explained the manner in which it was applied—and as I apprehend these machines may be used to great advantage in many parts of the United States where they have not been heard of, I will endeavor, as far as I can recollect to describe the machine, and explain the manner of using it.

The machine consists of a very strong pair of wheels, say 18 feet diameter; the axis is about 15 or 16 inches diameter. Near to, and the inside of one of the wheels, a third wheel, something less than the others, is framed on the axis as a hub. A large rope or hawser, is fasted to the periphery of the small wheel and coils upon it. To the end of this hawser are hitched four oxen—a large chain is made fast to the centre of the axis and round the stump. The Oxen drawing upon the hawser, turn the small wheel and axis, while the two large wheels remain stationary, only supporting the operation. The stump when thus extracted is borne off, swinging under the axis, to the line where the fence is to be made.

It may be necessary to add that where the stump is large and holds a strong grasp upon the earth the most prominent top roots should be cut off 3 or 4 feet from the stump.

The fence is constructed by throwing the stumps into line, and stopping in here and there a root to secure the widest openings. To those acquainted with the durability of pine stumps, it is hardly necessary to observe that the fence constructed of them will remain sound for at least one generation.

The machine constructed as above and applied by four men and four oxen will extract from 70 to 80 stumps per day. Its usefulness needs no comment. There is nothing visionary about it. The experiment has been tried upon a large scale, and many a farmer who heretofore dreaded the pine stump as an enemy which would survive himself and annoy his heirs, now swings his undisturbed scythe or cradle over the strong ground which his fallen foe once occupied.—*Centreville Times.*

Broken Limbs of Animals.

An idea prevails with many persons, that broken limbs of horses and other quadrupeds, cannot be cured, owing to the difficulty of keeping the part sufficiently at rest during the time necessary for a broken bone to heal, or acquire sufficient strength to support its share of the animal's weight.

I heard of a case, some months since, which was successfully treated in the following manner, viz: Two pieces of scantling sufficiently strong to support the horse, were placed over and parallel with him in the stable; a piece of strong linen was then passed under him, and the two opposite ends confined to the scantling, so as to raise him from the ground or floor when required; a wooden box was provided with a bottom, two sides, and one end, composed of boards nailed together, and of sufficient length, width and depth, to contain the leg from the knee to the foot, inclusive, besides a space of half an inch or more on each side of the leg to admit the necessary bandages, &c., with the bottom cut away sufficiently for the foot to enter and retain its natural relative position with the leg. The broken leg was confined in this box and treated in the usual manner that bones are when broken, and the box together with the leg from the knee to the foot confined in a horizontal position or nearly so, by straps of leather or other suitable substances passed over the horse's back, and the two ends confined to the box; the horse was permitted to put his other three feet upon the floor, sufficiently to preserve a healthy action to the limbs but not so as to permit him to displace the broken limb in the box and injure it. A cure was effected in the course of a few weeks. This was one of the anterior (or fore) legs. I see no difficulty in treating the hind leg, by partially suspending the animal in this manner, and varying the other parts according to the particular nature of the case.—*Farmer's Cab.*

Blast in Pear Trees.

At the April meeting of the Pennsylvania Horticultural Society, the following communication was received:

The undersigned would respectfully inform the society, that he has known to be practised with success the following method of preventing the blast or blight in this delicate and useful tree. It is by merely *cutting out* a strip of the bark of the tree from the trunk and from the lower limbs, of the width of a half to a quarter of an inch, or greater, according to the size and age of the tree. When cut from the trunk, it is not necessary that the excision should be more than one third of the length, but longer in a very vigorous stock would not be injurious. This operation should be made about the middle of June, if the weather be very warm, and if not, should be delayed until August. The *rationale* or supposed rationale of this operation, is founded on the supposition that the sap of that tree, which is known to be remarkably abundant at that period, is affected by the heat of the sun, and the person making the experiment on touching the woody part of the stock will readily suppose there may be some reason for that idea, as it will prove to him that the sap and stock, particularly the former, are very much heated. It is proper to state that the above is not considered as a discovery of his own or of his father, as the preventive was communicated to the father of the subscriber by the late Stephen Girard, Esq., who practised the same with uni-

form success. I do not know that an operation of this kind in the month of June or July would save the tree from the effects of heavy frosts, but think it probable that a bare *incision* made in *December* might have the same beneficial results.

JESSE Y. CASTOR.

April 10, 1837. *Poulson's American.*

Rotation of Crops.

The subject of rotation of crops is one of great interest to the farmer, and although it is a practice which is of great antiquity, yet not so much is known respecting the philosophy of it, or indeed the mere practice of it as there should be.

It seems to be founded upon the following principles. 1. "That different plants absorb from the same soil different juices, and that a piece of ground exhausted by culture of one kind of crop upon it, may still contain juices proper and suitable for another crop. It is known however that plants absorb all soluble substances that the soil contains whether injurious to their growth or not. 2. The roots of different plants being of different lengths extend into different layers of the soil, and thus derive from it proper nourishment. The roots of all plants at the time of sprouting or germination must be in the same stratum of soil, and must be equally dependent upon it, besides, by cultivation the soil is turned over and the different layers are mingled together so as to give them a sameness of quality."

The theory which seems to be most plausible to account for the propriety of the rotation of plants, is that advanced by Decandolle, viz: That plants reject or throw out from their roots into the soil such portions as are not most salutary to them, and that when the soil becomes charged with such juices that plant will cease to grow; but another kind may require these very juices for its sustenance, and consequently grow luxuriantly in it.

We believe there is something more in this than mere theory.

Experiments tried by different people go to establish the fact. M. Macaire, a French Agriculturist, among other experiments, tried the following. He put some peas and beans in pure water. They flourished very well for a long time, and the water became yellow, and was found by evaporating it, to contain a matter analogous to gum and a little carbanate of lime. When water in which these plants had been raised, had become pretty well charged with the above matter, fresh plants of the same kind would not do well in it. But if plants of wheat were put in, they lived well, the yellow color of the water changed—the residum gradually disappeared, and the wheat evidently assimilated to itself the matter which the former plants had thrown out.—Hence it was inferred that wheat would do well after peas or beans. This we believe is found to be the fact in practical agriculture; and many farmers like to have a crop of peas or beans to precede their wheat crops. It would be well for farmers to observe closely, and ascertain what plants will succeed each other best, and profit by the results.—*Me. Farmer.*

Method of destroying Wolves and Crows.

An entensive farmer of Kentucky has very politely furnished us with the following method of destroying wolves and crows:

"If you think the following information would be of any service to any of your subscribers, it is at their service. I have a mountain farm that would afford excellent pasture for sheep, but was so infested with wolves that it would have been very hazardous to have risked them there. In order to destroy them, we took an old horse and bled him in such a way as to make a trail of blood for about 5 miles; we then killed him, and having stuck a great many holes in him, put about a grain of stricnine into each hole. I also removed the skin off one hip and thigh, where most of the poison was put. The skin was dragged 4 or 5 miles, coming back again to the horse. All the wolves in the neighborhood would in this way be brought by the trails to the horse.

"Several dead ones were found near the horse, and they are very scarce in that neighborhood since. I shall repeat the experiment shortly.

"I have also killed all the crows on my farm in the same way. I took a quarter of veal, and having cut up a portion of it into small pieces and mixed stricnine with them, I stuck many holes in the meat, and put one of those small pieces in each place. I also sprinkled stricnine over the meat, and then put the veal in a place where dogs could not get to it, and where the crows resorted, and in a few days there was not a crow to be seen on my farm, except dead ones, which could be picked up all over the place.

"For four or five years, I have killed *my crows* in the month of April, shortly after they had built their nests and become stationary, and am not troubled with them any more, until they begin to gather in flocks in the fall of the year.

"If a dog should by accident get poisoned with stricnine or nux vomica, an emetic of tartar will cure him. It will require a teaspoonful or more to operate."—*Farmer & Gardener.*

From the New England Farmer.

Form of a Roller.

MR. FESSENDEN:—Having lately seen two or more descriptions of Rollers in the Farmer, I will try to give you the description of one I lately saw in Lancaster County, Pa. at the farm of a friend of mine and which he says is the kind most approved of in parts of Chester Co. Pa. A stick 6 feet long and from 20 to 36 inches in diameter is to be boared through with a 5 inch hole, then by placing blocks in each end find the centre of each hole and describe a circle on each end of the stick, as large as it will admit, from which dress it round and smooth, and then with a cross cut saw, saw it in two which gives you two pieces of 3 feet each in length; next prepare a good piece of wood for an axis, dressed round, and ¼th of an inch less than the hole bored, and long enough to run through both pieces and secure in the frame with a tenon of 2 by 4¾ inches on each end; on one end is to be left a shoulder, inside of the tenon and on the other a piece of board as a washer to keep the roller clear of the frame in working. The frame consists of 2 pieces before and 2 behind, and one on each side; into the latter of which is put the axis after having the two parts of the roller and the washer put on. A tongue is secured to the two front pieces of the frame with stay chains to prevent strain in turning, and a sheath and rings for breast chains on the end, and a pin hole at the proper place for a double tree, but where oxen are used nothing but 2 pins near the end of the tongue is necessary, and no iron is used in the construction except the stay chains and sheath. A box for giving it additional weight or for gathering stones may be placed either over the top, or, as is often done, to lengthen the tongue on the hind part of the fame. The advantage of having the roller in 2 pieces is, that it turns easier and without dragging the ground, as in a short turn the pieces move in opposite directions.

It is said to work admirably.—My friend told me that in cash laid out, his roller cost $3; the stuff he had of his own and took no account of hauling it. He had a carpenter 1½ days whom he assisted and paid for boring. If the foregoing description has not been already given and you think it will be of any use, you may publish it.

A PENNSYLVANIA SUBSCRIBER.

ROAD MAKING.—There is more than usual public spirit evinced in favor of highway improvement. and much has been done in the way of permanent repairs. The path-masters will excuse us for one suggestion. Turnpikes on clay ground, however well constructed, are subject to ruts; from small beginnings, the ruts become seriously inconvenient, and difficult to remedy. The old homely adage—"A stitch in time, saves nine"—is strictly applicable. In all cases, labor sufficient might be reserved to mend the ruts as they occur, and prevent their enlargement, until the road has become solid from time and use. Clay turnpikes will not be permanent, unless the side ditches are sunk so far below the basis of the structure, as to prevent the access of the water from them. The making of turnpikes with this simple rule neglected, is labor spent for worse than nought.—*Lockport Dem.*

Flour was selling at Memphis (Tennessee) on the 11th inst. at 17 and $20 the barrel.

2.000 LBS. Ruta *B*aga, English Turneps, and Mangel Wurtzel seed, just received from England, and for sale at reduced prices, at the English *S*eed *S*tore, 62 *B*uffalo st. KEDIE & HOUGHTON.
april 29

14,000 Acres of Land for Sale.

IN Pinegrove township, Venango county, Pa., in tracts of 50, 100, or 200 acres, so subdivided as to suit purchasers, at moderate prices. Terms, one-fourth cash, the rest in four yearly payments without interest, and no charges made to the purchasers for deeds or writings. HENRY SHIPPEN.
Meadville, Pa. July 1, 1837. jy 22-f3t
☞ Lots and Out-lots for sale in the village of Shippenville, where mechanics are much wanted.

Valuable Works on Gardening.

THE YOUNG GARDENER'S ASSISTANT—containing practical directions for the cultivation of Vegetables, Fruits and Flowers. By T. Bridgeman, seedman and florist, New York—seventh edition, improved. Price $1.

THE FLORIST'S GUIDE—containing practical instructions for the cultivation of Flowers. By the same author. Price 37 1-2 cents.

THE KITCHEN GARDENER'S INSTRUCTER—containing ample directions for the cultivation of culinary vegetables, herbs, &c. By the same author. Price 37 1-2 cents.
For sale by REYNOLDS & BATEHAM,
May 20. Rochester Seed Store.

Valuable Publications.

THE following valuable works are published by *D. K. Minor* and *G. C. Schaeffer*, 30 Wall-street, New-York, to whom all orders should be addressed:

New York Farmer, and American Gardeners' Magazine,—published in semi-monthly parts of 16 pages, at Three Dollars per annum, in advance.

Rail Road Journal, and Advocate of Internal Improvements—published once a week, in a large octavo form of 16 pages at five dollars per annum, in advance.

Mechanics' Magazine, and Journal of the Mechanics' Institute—published and forwarded, in weekly sheets of 16 pages, or monthly parts of 64 pages, if desired, at three dollars per annum in advance.

Transactions of the Institution of Civil Engineers of Great Britain—Republication, in six parts. This work is from the pens of the most eminent Engineers in Great Britain. Price three dollars per copy, or five dollars for two copies; it can be sent by mail to any part of the country. The English copy, from which this is printed, cost ten dollars, and others were sold for the same by the importers. There will be about forty pages of Engravings, neatly done on wood.

Also, Pambour on Locomotion; Van de Graaff on Rail Road Curves; Nicholson's Abridged Treatise on Architecture, with over 40 pages of Engravings; and Views of the Thames Tunnell.

Improved Cultivators.

JUST received from Albany, a few of Bement's Expanding Horse Hoes or Cultivator, with extra mouldboards, &c. complete. These are the most approved and perfect implements of the kind now in use, and deserve the particular attention of Genesee Agriculturists.
REYNOLDS & BATEHAM.
Rochester Seed Store, June 29, 1337.

Berkshire and China Pigs for sale.

THE subscriber has a considerable number of the pure Berkshire and China Pigs on sale at his residence on the Niagara river, 2 miles below the *B*lack Rock mills. *H*e has also crosses of the *B*erkshire and China, and the China with the long English breed which are equally quiet in their habits, and possess the same tendency to fattening as the former, and have much the advantage in size. The character of these breeds are so well known throughout the state that any description would be superfluous; they are the choicests breeds in England, and the only kind used by their best farmers, and it is believed the same quantity of food will make from 25 to 75 per cent. more pork in these hogs than if fed to the ordinary breeds.

PRICES.

Pure China or cross of China with the long English per pair at 4 weeks old,			$12 00
do. do. do. 6 weeks old,			15 00
Cross of China & Berkshire, perpair at 4 weeks old,			14 00
do do. do do	6	do	18 00
Pure Berkshire,	do.	4	do. 15 00
do.	do.	6	do. 20 00

Communications made through the post office, should be directed to Buffalo.
june3tf A. B. ALLEN.

Still More Seeds!!

WE have just received large additional supplies of genuine Orange Carrot, Mangel Wurtzel, Ruta Baga, and English Turuep seeds, of the best quality.

Also, a good supply of Cucumber, Melon, Squash, and Pumpkin seeds.

The unprecedented demand for seeds this season, had exhausted our stock of some kinds. We can now supply orders at very low prices.
REYNOLDS & BATEAAM,
Rochester Seed Store. Arcade Buildings.
May20

WILLIAM ATKINSON, *LAND AGENT*, 17 Exchange-street, Rochester. ☞ Farms for sale.
march 4 6m

Fruit Trees For Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county, state of New York, a large quantity of Fruit Trees, grafted and innoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL MOULSON.
apr 15-tf

From the Auburn Banner.

Botany--Its Nomenclature.

Perhaps the most current objection against this science is founded upon the vocabulary of long and technical names which must be familiarized in its pursuit. What, it is asked, is the use of introducing Latin terms into a popular science? It may be answered, they are not now introduced but perpetuated for may reasons, among others—

1. On account of their distictiveness.
2. Because is seems impossible to substitute a new nomenclature either so simple or so systematic.

But it is said 'we have common names already.' Not however for one tenth of the plants known. Common names only prevail in particular sections of the country; they are constantly changing and sometimes three or four are applied to one plant. The task of learning them is in the first place greater, and after they are familiar, they can seldom be used or referred to with certainty.

The nomenclature of Linnæus was conceived from the custom of distinguishing a family by a common or generic name and the individual members of the same by a trivial or specific name. The names adopted were rendered into Latin because that was the scientific language then, as now, common to all nations.

Happily these came into universal use in place of the long and unwieldly epithets which before rather described than named their subjects. The present system has been sanctioned by adoption into every scientific treatise on the subject. It is sufficient now in any part of the world, in order to be understood by an amateur of plants, to mention Linnæan names. To change these would introduce universal confusion and cause the waste of a vast amount of labor, while it would scarcely produce benefit in a single instance, certainly, not in making more easy the task of a thorough student. No person who has become acquainted with the present scientific names ever wishes them changed, and any person who can be content to learn one at a time, will soon become master of all that are requisite for his use. Besides, there are many advantages secured by the present system. In many instances the name gives the character of the plants or hints at some distinctive peculiarity. The student of ancient literature also finds in almost every specimen of vegetable production a remembrancer of words and thoughts, more enduring than brass or marble, and thus in the 'grass that withereth and the flower that fadeth,' he gathers a rich and unexpected reward of his classic toil. And he who is here for the first time introduced to the languages of the dead, will not perhaps find it his misfortune that the same are applied to existing objects, and can be learned from practical use as well as from the abstractions of the Lexicon. It has been a favorite opinion of the writer, that if boys were trained from early years to a practical acquaintance with Botany, when as an amusement they might gain a familiarity with its precise and technical terms, they would insensibly overcome some of the most formidable obstacles to the acquirment of the Latin language, and to some extent of the Greek. The barbarian sounds of a strange tongue would become familiar to their care and through life retain the sweetest associations of their youth, being linked with the recollection of all that was beautiful and romantic in their school-boy rambles.

On the whole, the Linnæan nomenclature has exerted a most happy influence, not only on this but on the various other branches of natural history. Having been universally adopted and having passed through several eras in civil and in literary history, it still retains its position as the basis of subsequent improvement, and promises to the student of the present day no fewer advantages than it afforded to those devoted men who in the eighteenth century gave up their talents and fortunes to the promotion of this interesting science. One of the pupils of the Swedish naturalist circumnavigated the globe with Cook. Others visited Japan, China, the Indies, Arabia, Palestine, Egypt; So. Africa and America. And the number of 8000 plants, which was a large collection in 1735, has within a hundred years been swelled to 50,000 which are now systematically arranged and described. It has been conjectured that there yet remain as many more to be discovered is parts of the earth not yet visited or partially explored. It is sincerely to be hoped that Americans will not be backward in paying their tribute to science, at least by an investigation of all the productions of their own fertile soil.

D. P. KIDDER.

Rochester, July 10.

The way is open to all.

Miss Martineau, in her recent work on this country, says that the only unhappy young gentlemen in our Northern States, are those who are born to a fortune. Well, there is more truth than poetry in this. Let those who have no other fortune than their hands, think of it. There is a free road open to them. Almost every great name that has adorned the world, has been won by personal effort—unaided by the fortuitous power of wealth, or mush room force of birth. Young men of our country, go up this road. Go up it, by your own exertions, for you will never ascend by any other. Rely upon nothing else, for all else may fail you.

To our contemplation, there is no spectacle more worthy of admiration than a virtuous young man, advancing himself in the esteem of the good and worthy, by his own exertions. His industry is unceasing—his deportment modest and unassuming. His principles are fixed—his integrity unflinching. He practices the cardinal virtues for the love of them—and others love him for their practice. He should meet kindness on every hand. Mankind are interested in his success, for he may become the depository of the power which our fathers exercise. He may sit in the high places—giving laws to the country and wisdon to the age.

We would not destroy the hey-day of youth.—There is a natural buoyancy to youth, that should be indulged. But it should be cherished only in useful, innocent, refined amusements. Amid the intelligent society of virtuous females, young men should seek relaxation from the cares of the counting house, and the toils of the work shop. Here will their affections be purified, their manners refined. If the matron of the mansion approve it, let the young join in the merry dance to win invigorating relief to their physical powers.

Young man, shun as you would the plague, those who deride the society of virtuous females. There is a moral pestilence in the very atmosphere they breath. If they loved virtue, they would love virtuous society. It is sure proof that they knew themselves to well too enter where virtue and refinement alone diffuse their refulgent light. Seek society above yourself, but enter not that which is *beneath* you, either in intelligence, refinement, or virtue.

More young men are ruined, in our cities, by *bad associations*, than from all other causes combined. When the *novice* enters a *coterie*, he soon catches the prevailing spirit. If drinking and carousing prevail, *he* drinks and carouses. He will not be laughed at because he cannot swallow as much wine as his fellows, and if they partake of 'the strong drink that maketh mad,' he shows his *strength* of head in swallowing the same potations. If others gamble, he gambles. As they descend to the lowest vices, in a spirit of *bravado*, he sinks down with them—to the very depths of pollution—until he hangs upon society, a pest and a nuisance instead of an honor and an ornament, as he might have been, had he not met ruin in the bewildering, contaminating, blighting influences of *pernicious associations*.

When we behold a young man capable of resisting all such temptations, we watch his steps in profound admiration. We look upon him as a bright promise to human liberty. Morality shall hail him has her champion. Religion will exult in his defence. He shall sit in the high places of the Republic—and his name shall endure,

When monumental marble
Hath crumbled with its scroll.

ELECTRO MAGNETISM.—The new machine of Davenport & Cook has been vastly improved within a few days. The New-York Sun says that—Mr. Cook has entirely remodelled the stationary and revolving magnets, by which means he gives the magnetic current any desirable direction. He seems to have studied Nature in her grandest works and adapted the machine to her principles. As the electric fluid spins around one planet, so Mr. Cook now causes the magnetic currents to move around the wheels of his machine; he thus brings the great principle of this interesting branch of science into entire subserviency.

If doubts have heretofore existed in relation to the ultimate success of the invention, this improvement is well calculated to remove them. It triumphantly refutes the objections which have been raised against it, and clearly proves that electric-magnets when in contract with each other, will labor with unimpaired, if not with increased energy, in propelling the machine, and that its power may be increased in a much greater ratio that the relative increase of weight.

The proprietors of this invention, confident of its almost priceless worth, have steadily resolved that they will hazard nothing by rashness. They have exercised an economy corresponding with the times, and a discreet regard to the value of the invention, in making their experiments and settling principles on a small scale—although the impatient may censure, the wise will approve.

This improved model, which was made in order to test and illustrate the principles by which it is moved, has a motion wheel of only seven inches diameter, which we would suppose would be hardly sufficient for a pully to a turning lathe, although moved by some other power; yet we saw this machine attached to a lathe in which iron was turned, the chisel taking chips from the iron with all the power the holder could well exert—thus exhibiting an energy far superior to the steam engine in proportion to its weight.

As electricity, galvanism and magnetism are admitted to be but little understood, as every new discovery in relation to them urges further investigation, and each electro-magnetic engine produced in progress of manufacture, comes out with increased power and improved simplicity; we have every thing to hope and nothing to fear from a full development of the science.

We believe that the doubts in relation to the utility of this invention have mostly originated in the erroneous opinion that the machine was moved by the mere force or velocity of electricity. But such is not the case. Magnetism, produced from the galvanic fluid, is the motive principle. A current of this fluid, so feeble that it would not even move a feather, will produce a magnetic power of several tons; so that any desirable amount of power may be produced by multiplying the number of magnets in use.

We have long been convinced that mankind as yet were but in the ignorance of infancy—that we might look forward with confidence in anticipation of the almost endless achievements of science and art. Yet, we confess that we scarcely anticipated a single invention would thus tame and bring into subjection nature's most subtle and all—pervading principle—that we should manufacture our clothing—saw our lumber—grind our grain—ride on our rail-roads—navigate the ocean and sail in the air through the agency of the lightnings of Heaven. Still all this is like to be accomplished even in our own day. If fame be worth pursuing, Mr. Davenport may yet enjoy as much of it as man can reasonably desire.

3.125 LBS. Ruta Baga, White Flat, Norfolk, Long Tankard, Yellow Bullock, and other Turneps, Mangel Wurtzel, French Sugar Beet, and Orange Carrot, with a great variety of *English Imported Garden Seeds*—"cheap as dirt" at the Rochester Seed Store, *Arcade Buildings* apr29 REYNOLDS & BATEHAM.

Monroe Horticultural Garden & Nurseries, Greece, Monroe Co., N. Y.

THIS establishment now comprises over 90 acres, covered compactly with Trees and Plants in the different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired delivered on the canal one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant gratis, or may be had by calling at the office of the Genesee Farmer.

April 1, 1837. ASA ROWE.